

# UNIVERSITY OF KENTUCKY WHEAT SCIENCE NEWS

Research & Education Center,  
Princeton, KY 42445  
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## **2006 WINTER WHEAT MEETING**

January 10, 2006 8:30 AM—2:30 PM (CST)  
University of Kentucky Research & Education Center  
Princeton KY 42445

<u>Time</u>	<u>Topic &amp; Speaker</u>
9:00—9:20	Welcome & Introduction—"Analysis of a Great Wheat Crop" Dr. Jim Herbek, University of Kentucky
9:20—9:40	Unique Aspects of UK Wheat Variety Testing Bill Bruening, University of Kentucky
9:40—10:00	Wheat Breeding Update Dr. Dave Van Sanford, University of Kentucky
<b>BREAK</b>	
10:10—10:40	PCU & Other Nitrogen Issues Dr. Greg Schwab, University of Kentucky
10:40—11:00	Wheat for Straw Dr. Chad Lee, University of Kentucky
11:00—11:20	Grain Quality Update Carl Schwinke, Siemer Milling
11:20—11:50	Stripe Rust & Fungicide Update Dr. Don Hershman, University of Kentucky
<b>LUNCH</b>	<b>PROVIDED BY KY SMALL GRAIN GROWER'S ASSOCIATION</b>
1:00—1:20	Factors Affecting Ryegrass Control and Crop Injury Dr. James Martin, University of Kentucky
1:20—1:40	Successfully Storing High Quality Wheat Dr. Doug Johnson, University of Kentucky
1:40—2:00	Wheat Opportunities in Post Soybean Rust World Dr. Richard Trimble, University of Kentucky
2:00—2:30	Wheat Market Outlook Dr. Steve Riggins, University of Kentucky

### **Applied For:**

4 CCA Credits—Pesticide Credits, 1 general hr. and 1 specific hr. in Category 1, 1b, 4, 10, 12 & 14

## **RYEGRASS CONTROL STRATEGIES THIS SEASON IN WHEAT**

James R. Martin—UK Weed Scientist

The dry soil conditions earlier this fall has caused emergence ryegrass to be sporadic. Sporadic emergence patterns are not unusual, particularly for fields with a history of ryegrass, yet problems may be greater and more difficult to manage this season than in a normal year.

Ideally you want the majority of ryegrass emerged and actively growing when treating infested areas. Checking fields now will help assess the emergence of ryegrass and its growth. Now may be a good time to treat fields if the weather is favorable and ryegrass is ready to spray.

Hoelon and Osprey are currently the two main options available to Kentucky growers. The choice between the two depends on a number of factors including whether or not ACCase resistant ryegrass is present, if there is a risk of later emerging ryegrass plants, weather conditions, and topdressing nitrogen.

**Herbicide Resistance:** Osprey is an ALS inhibitor, whereas, Hoelon is an ACCase inhibitor. This difference in chemistry is important in controlling Hoelon resistant (also referred to as ACCase resistant) ryegrass. There is mounting evidence that Hoelon resistant ryegrass is present in Kentucky; therefore, the conservative approach would be to use Osprey if a grower has had control problems with Hoelon in "any" field or is aware of problems in neighboring fields. The fact that ryegrass seeds easily spread with harvesting and mowing equipment magnifies the risk it will encroach into new areas.

**Late weed emergence:** It is not always possible to predict when the majority of ryegrass has emerged, consequently there is concern that new seedlings may appear after spraying, particularly in seasons where emergence patterns are sporadic. At this point in the season, the threat of late emerging ryegrass plants is probably small where wheat stands are competitive. However, there may be cause for concern if wheat stands are poor and non competitive.

Hoelon has some soil residual activity and is labeled for preemergence control of ryegrass at the high rate of 2.6 pt/A. However, Osprey has very little soil residual activity compared with Hoelon. Results of last year's test confirmed the difference in soil activity for these two herbicides. When treatments were applied during the initial phase of ryegrass emergence, Hoelon at 2 pt/A provided 95% control compared with 83% for Osprey at 4.75 oz/A. It is important to recognize that Hoelon, at this rate, did not persist season long and control eventually decreased as newly emerging ryegrass appeared. Based on this observation, Hoelon may have a slight advantage over Osprey in managing plants that emerge during the first few

weeks after application, yet it is unlikely Hoelon will provide control through the spring.

**Weather Conditions:** Having growing conditions that are favorable for plant growth increases the likelihood of achieving good ryegrass control and crop safety. As a general rule, there is at least one window of opportunity in December when ryegrass and wheat are actively growing and conditions are favorable for spraying. If this doesn't happen, then delaying the application until late February or March is the next choice.

Weather and other factors may have played a role in some of the injury observed with Osprey last season. Applying during warm sunny days at 70° F followed by 40° F or less nighttime temperatures may lead to wheat injury. This has been observed with other ALS inhibiting herbicides such as Harmon Extra. Although crop injury is also a concern with Hoelon, the risk of crop injury occurring with these types of weather conditions may not be as great for Hoelon compared with Osprey.

**Topdressing Nitrogen:** Another factor possibly related to Osprey injury deals with timing of application relative to topdressing with ammonium nitrogen fertilizer. There were cases of injury reported where ammonium nitrogen was topdressed within 14 days after Osprey was applied. The Osprey label cautions against topdressing within 21 days following the herbicide application. If growers are faced with delaying applications until later in the season when topdressing is likely, then Hoelon may be preferred over Osprey.

## **HIGHER NITROGEN PRICES AND ITS USE ON WHEAT**

Lloyd Murdock—UK Extension Soils Specialist

The price of nitrogen has made an unbelievable jump. The prices that I am hearing for Urea and UAN are 40¢/lb N or higher. This means a big increase in production costs. Does it mean that we need to change Nitrogen application rates?

I have looked over several N trials on wheat that we have done the last few years and calculated cost and returns related to N applications and grain prices. I have found, at the present price structure, that there should be only small changes from the recommendations that UK presently has. What I did see was a big drop in dollar returns when more nitrogen was added than needed for maximum yields.

### **February**

The N applied at "green-up" in February, the first of the spring split applications, is a beneficial application, but is subject to loss if periods of high rainfall occur after the application. Therefore, only add the amount of N needed to do the job and do not anticipate much carry-over later into the season. This application is timed for green-up of the crop and is designed to "jump start" the plant to maintain the tillers that were initiated during the fall growth.

Except for unusual conditions or a poor stand or tillering, only small amounts of N are needed at this time. Usually 30 or 40 lbs/a will do the job. If much of your wheat emerged late and does not tiller much over the winter, then a higher rate may be needed. If higher rates are not needed, but added, they will be subject to loss if excessive rains occur before jointing.

### **March**

This is the most important N application date for wheat. This is timed to be just before or at early jointing. It is when the plant begins to rapidly take up large amounts of nitrogen. Nitrogen added at this time will have the least risk of loss and will be the most efficient N of the three application times. If all the nitrogen is delayed until this application, the total amount of N applied can be reduced by 10 lb/ac because of the increased efficiency and the expected yield loss will be about 3 bu/ac due to only a single application. So a split application will still be profitable, but only marginally so.

The amount of nitrogen used at this date will vary for a number of reasons. If you routinely expect to raise less than 70 bu/ac then 60 to 80 lb/ac is sufficient. The 90 lb/ac rate is capable of producing 70 to 90+ bu/ac. If you are managing for higher yields apply a total of 100-105 lb/ac in the two spring applications or 90-95

lb/ac if applying in March only. If you are no-tilling your wheat, apply 90-120 lb/ac of N in the two spring applications. The 90 lb/ac rate will maximize yields about 60% of the time with a penalty of only a few bu/ac on the "off" years. The 120 lb/ac rate will only be economical under the conditions where we lose a lot of N due to very heavy rains or have a spring freeze.

### **Summary**

Applying higher nitrogen rates of insurance purposes is becoming very expensive.

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## **CLARIFICATION FOR PREVIOUS ARTICLE CONCERNING STORED GRAIN INSECTICIDES**

Doug Johnson—Extension Entomologist

This information relates to the article:

*Johnson, Doug. Quick Review of Currently Available Stored Grain Insecticides. Kentucky Pest News, No. 1070, Aug 22, 2005.*

Please note the following clarification and make any changes in your use plans as appropriate.

I have heard from FMC, representatives as follows: "We can not use [TalstarOne] in grain bins where grain is to be stored. We do not have the proper tolerance for stored grain. It can be used around granaries for general pest control, but not inside the grain bin."

FMC evidently does not intend for this product to be used in stored grain situations and does not support this use. My suggestion is that you not use this product in conjunction with your stored grain pesticide program.

I offer my thanks to FMC for clarifying this situation.

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Lloyd W. Murdock, Extension Soils Specialist

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